

State Of California

Memorandum

DOCKET 06-AFC-7	
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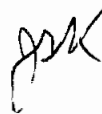
The Resources Agency of California

Date: May 11, 2007

Telephone: (916) 654-4679

To: Commissioner John Geesman, Presiding Member
Commissioner Jeffrey Byron, Associate Member

From: California Energy Commission – John S. Kessler
1516 Ninth Street
Sacramento, CA 95814-5512
Project Manager



Subject: **HUMBOLDT BAY REPOWERING PROJECT (06-AFC-7) STATUS REPORT 3**

Pursuant to the Committee Scheduling Order dated January 3, 2007, the following is staff's Status Report 3 for Pacific Gas and Electric's (PG&E's) proposed Humboldt Bay Repowering Project (HBRP).

Current Issues and Activities for Resolution

Staff has identified several potentially significant Air Quality and Public Health issues in conducting our preliminary evaluation of the Application for Certification (AFC) for the proposed HBRP. Staff had identified some of these potential issues early in this proceeding in its Issues Identification Report dated November 30, 2006, and has been unable to resolve them during our preliminary analysis despite conducting three rounds of Data Requests and three Data Response and Issues Resolution Workshops. Our analysis indicates that HBRP could result in a significant public health impact due to airborne toxins and may not conform with the U.S. Environmental Protection Agency's (U.S. EPA's) standard for fine particulate matter (PM_{2.5}). In reviewing the California Air Resources Board's (ARB's) preliminary engineering analysis and in discussions with the North Coast Unified Air Quality Management District (District), staff believes its position is shared with ARB and the District. Given the issues encountered to date, staff notified PG&E of the preliminary results of its analysis in a letter dated May 11, 2007, and has encouraged PG&E to examine alternatives to the proposed project inclusive of alternatives to its backup fuel supply of California Air Resources Board low sulfur diesel, reconfiguring its design, and evaluating other generation technologies. The most significant issues are summarized as follows:

1. Modeling provided by PG&E shows the project would cause a violation of the federal standard for PM_{2.5} for the 24-hour average concentration. The proposed project would contribute a particulate matter concentration of 17.82 µg/m³ when firing on natural gas with a 0.7 percent diesel pilot and a particulate matter concentration of 28.9 µg/m³ when firing exclusively on diesel fuel, which when added to the PM_{2.5} ambient concentrations would lead to maximum concentrations ranging over 50 µg/m³, well above the EPA standard of 35 µg/m³.

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ORIGINAL MAILED FROM SACRAMENTO ON 5/11/07

2. Considering it appears that the HBRP would cause a new violation of the federal 24-hour standard for PM_{2.5}, our understanding is that the North Coast Unified Air Quality Management District may not be able to proceed with a Determination of Compliance associated with PG&E's Application for Authority to Construct Permit for the HBRP.
3. Preliminary results of the Energy Commission staff's Health Risk Assessment shows health risks considerably above the significance threshold as defined under California EPA's Air Toxics Hot Spots Program Risk Assessment Guidelines. Compared to the California EPA threshold of significance for cancer risk of 10 in one million, our initial analysis indicates that the project would result in a cancer risk of 11 in one million for operation under natural gas only, 37 in one million based on 100 hours of diesel operation, and 212 in one million based on 800 hours of diesel operation per year. Staff's evaluation of two durations for annual diesel operation relates to an inconsistency in the AFC project description with the air permit application specifying up to 800 hours per year of diesel operation, while PG&E's Health Risk Assessment assumes no more than 100 hours of diesel operation.
4. In reviewing PG&E's air dispersion modeling, staff believes air emission concentrations have been underestimated as a result of PG&E's modeling techniques. Staff believes that PG&E's air dispersion modeling approach of merging two sets of five engine stacks into two equivalent stacks (rather than modeling as 10 individual stacks) is not consistent with U.S. EPA guidelines given the stack spacing. Furthermore, staff believes that the stack bundling approach is inappropriate for the project technology in a location affected by elevated terrain given the Humboldt Hill land feature immediately southeast of the proposed HBRP.
5. The lack of specific emission factors for the proposed generation technology, Wärtsilä dual-fueled engines, may be contributing to the significance of impacts. The use of surrogate ARB database emission factors by both staff and applicant for diesel-fired engines and natural gas-fired engines may not be representative of these proposed engines that fire natural gas and some diesel simultaneously. While staff is encouraging PG&E to obtain actual emission factors for the proposed engines, we are cautioning that use of actual numbers may still not alleviate all the issues associated with the proposed use of diesel.
6. As noted in (3) above, staff has identified an inconsistency in the AFC project description with the air permit application specifying up to 800 hours per year of diesel operation, while PG&E's Health Risk Assessment assumes no more than 100 hours of diesel operation. Assuming the PM_{2.5} issue can be resolved, and absent any change in PG&E's project description proposing to secure air quality permits based on 800 hours of diesel fuel operation per year, staff's analysis will be based on the higher number of hours.

The staffs of the Energy Commission, District, ARB, and Coastal Commission, as well as PG&E, continue to work cooperatively and expeditiously to support the comprehensive review and analysis of the proposed HBRP.

Schedule

Staff continues to assess and update the schedule of this normal 12-month AFC proceeding as we work to evaluate and resolve these significant issues. At this time, staff does not know how PG&E will respond to our letter of May 11, 2007 which could result in some combination of design reconfigurations and revision to its air emission dispersion modeling and health risk assessment. PG&E's possible revision process for the project would then be followed by assessments performed by staff, ARB, District and the Coastal Commission. In making our best estimate of the additional time needed, staff is projecting an additional 2.5-month delay in schedule in addition to the 2-month delay projected previously in Status Report 2, for a total delay in receiving a Preliminary Determination of Compliance (PDOC) and publishing the Preliminary Staff Assessment (PSA) of 4.5 months. This is predicated on the applicant's ability to provide responsive plans and modeling results by June 11, 2007, and receipt of preliminary comments or determinations from all local, state, and federal agencies, including the PDOC from the District by July 31, 2007.

The Coastal Commission is also anticipating delays in its analysis and report preparation schedule as affected by the potential change in PG&E's project design and/or description. Considering the Coastal Commission report normally follows our PSA publication date projected for August 30, 2007, the Coastal Commission staff now expects to issue their report during mid to late September (about one month later) for consideration at their October 2007 Coastal Commission meeting. This schedule would accomplish Coastal Commission review of the proposed HBRP prior to the Energy Commission publishing its Final Staff Assessment (currently scheduled for October 29, 2007), consistent with the Energy Commission/Coastal Commission Memorandum of Agreement for coordinating AFC proceedings. To the extent possible, staff will strive to publish its PSA by early August to support the Coastal Commission in preparing its report in time to be presented at the Coastal Commission meeting a month earlier in September. The September Coastal Commission meeting is scheduled to be held in Eureka, which would be most convenient for interested members of the public.

The following table summarizes the Committee's initial schedule in comparison with staff's currently-projected schedule, which has been updated to reflect the additional activities and estimated time required to resolve significant air quality and public health issues. Staff's projected schedule also indicates the normal duration of about 60 days between publishing the PSA and FSA. Staff, in coordination with the District, ARB, Coastal Commission, and PG&E, will strive to expeditiously complete its analysis and look for opportunities to condense the schedule to the degree possible.

**Committee's Initial & Staff's Projected Schedule
Humboldt Bay Repowering Project**

Committee's Initial Schedule	Staff's Projected Schedule	Event
N/A	January 11, 2007	Staff transmits Data Request Set 2
January 12, 2007	January 12, 2007	Applicant provides Data Responses – Set 1
January 30, 2007	January 30, 2007	Parties file Status Report 1
January 24, 2007	February 1, 2007	Data Response and Issue Resolution Workshop 1
N/A	February 13, 2007	Applicant provides Data Responses – Set 2
N/A	February 28, 2007	Staff transmits Data Request Set 3
N/A	March 12, 2007	Data Response and Issue Resolution Workshop 2
March 14, 2007	March 14, 2007	Parties file Status Report 2
N/A	March 30, 2007	Applicant provides Data Responses – Set 3
N/A	May 4, 2007	CARB provides preliminary Engineering Analysis to NCUAQMD
N/A	May 11, 2007	Staff transmits letter to applicant identifying preliminary air quality & public health issues
May 11, 2007	May 11, 2007	Parties file Status Report 3
N/A	May 25, 2007	Applicant provides response to staff's 5/11/07 letter indicating its plans & schedule for resolving issues
N/A	June 11, 2007	Applicant provides information in support of resolving issues identified in staff's 5/11/07 letter
March 8, 2007 ¹	July 31, 2007	Agency draft determinations and NCUAQMD PDOC
April 6, 2007 ²	August 30, 2007	Staff files Preliminary Staff Assessment (PSA)
May 2, 2007	September 14, 2007	Staff conducts PSA workshop
May 7, 2007 ³	September 28, 2007	Agency final determinations and NCUAQMD FDOC
June 6, 2007 ⁴	October 29, 2007	Staff files FSA

Please Note: Shaded events indicate those already completed

Proof of Service List
Dockets

¹ Actual date of publication designated "N"

² To be issued on N+30 days

³ Actual date of publication designated "M"

⁴ To be issued on M+30 days

**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE
STATE OF CALIFORNIA**

**APPLICATION FOR CERTIFICATION FOR THE
HUMBOLDT BAY REPOWERING PROJECT
BY PACIFIC GAS AND ELECTRIC COMPANY**

**Docket No. 06-AFC-7
PROOF OF SERVICE
(Revised 3/27/07)**

INSTRUCTIONS: All parties shall 1) send an original signed document plus 12 copies OR 2) mail one original signed copy AND e-mail the document to the web address below, AND 3) all parties shall also send a printed OR electronic copy of the documents that shall include a proof of service declaration to each of the individuals on the proof of service:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 06-AFC-07
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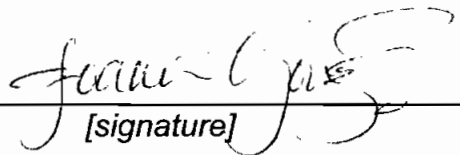
DECLARATION OF SERVICE

I, Joann Gonzales, declare that on May 11, 2007, I deposited copies of the attached Status Report #3, in the United States mail at Sacramento, California with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.


[signature]